

REMARKS

Claims 14 through 19 are now presented for examination. Claim 18 has been cancelled without prejudice or disclaimer of subject matter. Claims 14 and 19 have been amended to define still more clearly what Applicants regard as their invention, in terms which distinguish over the art of record. Claim 14 is the only independent claim.

The drawings have been objected to in that the claims include the limitation "the cover is detachably attached to the substrate" (Claim 14) and "said cover includes an air through-hole" (Claim 18) while Fig. 3a only shows that the cover is detachably attached to the multi-layered film and an air through hole between the surface of the mask and the cover. The limitation of "the cover is detachably attached to the substrate" in Claim 14 as currently amended has been replaced by the limitation "said cover includes a vent hole having a lid openably closeable to said vent hole, and at least a part of said cover being arranged so as to be detachably attachable to said mask body". This replacement limitation is shown in Figs. 4A and 4B. and is disclosed from line 20 of page 17 to line 20 of page 19 in the specification. Claim 18 which included the limitation "said cover includes an air through-hole" has been cancelled. Accordingly, it is believed that the claims as currently amended fully meet the requirements of 37 C.F.R. § 1.83(a).

The specification has been objected to under 37 C.F.R. § 1.75(d)(1) in that the specification fails to provide the claimed subject matter of "the cover is detachably attached to the substrate" and "said cover includes an air through-hole". As discussed, the objected-to limitation of Claim 14 has been replaced by the limitation "said cover includes a vent hole having a lid openably closeable to said vent hole, and at least a part of said cover being arranged so as to

be detachably attachable to said mask body" which is disclosed in the specification from line 20 of page 17 to line 20 of page 19 with respect to Figs. 4A and 4B and Claim 18 has been cancelled. Accordingly, it is believed that the specification fully meet the requirements of 37 C.F.R. § 1.75(d)(1) with respect to the claims as currently amended.

Claims 14-19 have been rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,422,921 (Chiba) in view of Japanese patent document number 63072119A (Kubota et al.). With regard to the claims as currently amended, this rejection is respectfully traversed.

Independent Claim 14 as currently amended is directed to a reflection type mask in which a mask body has a substrate, a multi-layered film formed on the substrate that reflects X-rays and a pattern formed on the multi-layered film that absorbs X-rays. A cover protects the pattern. The cover includes a vent hole having a lid which is openably closeable to the vent hole. At least a part of the cover is arranged to be detachably attachable to the mask body.

In Applicants' view, Chiba discloses an X-ray mask structure that has an X-ray absorber having a masking pattern. An X-ray permeable film supports the X-ray absorber on a surface of the X-ray permeable film and a supporting frame support the X-ray permeable film. The X-ray mask structure has a metal oxide film formed on a portion of the surface of the X-ray permeable film having no X-ray absorber thereon.

In Applicants' opinion, Kubota et al. discloses a transfer mask structure for X-ray exposure that is effective to safeguard a pattern as well as enabling quick mounting or dismounting of a pellicle with a frame where the frame on the transfer mask is covered with the pellicle. The pellicle has a frame 4 mounted on a transfer mask. The pellicle 4 covers a frame 4a

of silicon and the like. The frame is mounted on the transfer mask in such a manner to enable quick mounting or dismounting. The pattern is inspected after dismounting of the pellicle 4 with the frame. Reassembling the pellicle 4 with the frame permits the mask pattern to be protected with the pellicle film 4b.

In accordance with the invention of independent Claim 14 as currently amended, a cover that protects the pattern of the mask body includes a vent hole (27) having a lid (28) -that is openably closeable to the vent hole. Advantageously, the reflection mask adjusts the inner pressure within the space formed by the cover to be substantially equal to that in a preliminary evacuation chamber without detaching the cover.

Chiba may disclose an X-ray mask structure in which an X-ray absorber having a mask pattern has an X-ray permeable film supporting the X-ray absorber on the surface of the X-ray permeable film. As noted by the Examiner, Chiba fails to teach a cover that protects the mask pattern that is detachably attached to a mask body. Kubota et al. may teach a transfer mask structure for X-ray exposure using a pellicle. In Kubota et al. the reference numeral 4a refers to a frame member and the reference numeral 6 denotes an adherent material. Applicant has not found any teaching or suggestion of a vent hole in the cover of Kubota et al.

With regard to the cited combination of Chiba and Kobuta et al., Chiba is recognized as not teaching or suggesting a detachably attached cover that protects a mask pattern and the cover of Kobuta et al. fails to teach or suggest the use of a vent hole in the cover for a transfer mask structure. Accordingly, it is not seen that the addition of Kobuta et al. which is devoid of disclosure of a cover having a vent hole added to Chiba's X-ray mask structure that fails to teach a cover for protecting a mask pattern that is detachably attached to a substrate could possibly

suggest the feature of Claim 14 of a cover formed on a multi-layer film that is detachably attached to a mask body which cover includes a vent hole having a lid openably closeable said vent hole. It is therefore believed that Claim 14 as currently amended is completely distinguished from any combination of Chiba and Kubota et al. and is allowable.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as references against the independent claim herein. That claim is therefore believed patentable over the art of record.

The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

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Respectfully submitted,



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